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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,565	08/14/2001	Gordon Johnston Robertson Povey	668-62	2368

7590 04/06/2004  
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EXAMINER

GOINS, DAVETTA WOODS

ART UNIT PAPER NUMBER

2632

DATE MAILED: 04/06/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/913,565

**Applicant(s)**

POVEY ET AL.

**Examiner**

Davetta W. Goins

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 4-11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 6 and 11 is/are allowed.  
6) ☒ Claim(s) 1,4,5 and 7-10 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

1. Claims 6 and 11 are allowed.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 4, 5, and 7-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Hilliard et al. (US Pat. 6,417,784 B1).

In reference to claims 1, 8, Hilliard discloses the claimed conductive loop arranged in a road surface, wherein at least one loop is arranged substantially in a plane perpendicular to the road surface, thereby defining an axis of the loop extending substantially parallel to the road surface, wherein the plane extends laterally across the road, oriented in a direction substantially perpendicular to a direction of travel along the road, which is met by the orienting the plane of the wire-loop substantially perpendicular to the plane of the pavement into which it is embedded as opposed to being parallel with the pavement (col. 6, lines 37-46). Further, the plane of the blade-type wire-loop may be oriented either substantially parallel or substantially perpendicular to the plane of the roadway surface (col. 7, lines 28-40).

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In reference to claim 10, Hilliard discloses the claimed plane extends laterally across the road in a direction perpendicular to a direction of travel along the road, which is met by the wire-loop is maximized by orienting the wire-loop at an angle to the direction of traffic flow (col. 6, lines 3-21).

In reference to claims 4, 9, Hilliard discloses a) the claimed plurality of electrically conductive loops arranged in a road having a road surface, wherein the loops are arranged substantially in a plane perpendicular to the road surface, thereby defining an axis of each of the loops extending substantially parallel to the road surface, which is met by an extended blade-type wire-loops providing the combined benefits of the blade-type wire-loop and the extended wire-loop extending along the roadway surface; the plane of the blade-type wire-loop may be oriented either substantially parallel or substantially perpendicular to the plane of the roadway surface (col. 6, lines 59-67; col. 7, lines 1-40), and b) the claimed at least one loop comprising a plurality of loops arranged in a line in a single slot cut into the road surface, which is met by wire-loop 5 positioned below the first wire-loop 1, both embedded in the pavement by use of eight saw-cuts in the roadway surface (col. 7, lines 16-67; col. 8, lines 1-7).

In reference to claim 5, Hilliard discloses the claimed one active electronic component located in the slot adjacent to each loop, which is met by capacitors 7 and 8 attached to each of the two wire-loops, 1 and 4 respectively to form two closely matched LCR oscillator circuits (col. 8, lines 12-17).

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In reference to claim 7, Hilliard discloses the claimed at least one loop encapsulated in a semi-rigid enclosure, which is met by the wire-loop wound or plated onto a form, typically plastic and pre-fabricated such that the blade wire-loop is embedded into the pavement and the slot is weather-sealed (col. 6, lines 44-65).

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Response to Arguments***

5. Applicant's arguments filed January 12, 2004 have been fully considered but they are not persuasive. The Applicant argues that Hilliard et al. does not disclose the claimed limitations set forth in the amended claims. However, as shown above in the rejection (specifically col. 7, lines

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28-40) Hilliard clearly teaches that the inductive loop can be placed in the road such that the blade-type wire loop may be oriented either substantially or perpendicular.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davetta W. Goins whose telephone number is 703-306-2761. The examiner can normally be reached on Mon-Fri with every other Fri. off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu can be reached on 703-308-6730. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9306 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-7666.



D.W.G.  
April 2, 2004

Davetta W. Goins  
Primary Examiner  
Art Unit 2632